

REMARKS

Applicants respectfully request reconsideration of this application, as amended.

Claim 8 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In response, Claim 8 has been amended to more clearly recite that acknowledging information for previously-transmitted TBs is prepositioned to the transmitted TBs.

Claims 1–11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundsjö (US 6,473,442) in view of Decker (US 5,946,320). Claim 1 is directed to a data transmitting method and recites, *inter alia*, “adjusting a puncturing rate based on information on notifying acknowledgement, received from a remote counterpart, for previously-transmitted TBs, and applying the adjusted puncturing rate to the stored TBs in the middle of a preparing process for transmitting the TBs through a physical channel actually.” Claim 10 is directed to a base station and recites, *inter alia*, “a controller ... controlling retransmission of the TB based on whether or not the TB is acknowledged from a remote counterpart, and determining a puncturing rate of a TB based on acknowledged information from the remote counterpart.” Applicants submit that neither Lundsjö nor Decker, taken either singly or in combination, teaches or suggests these features.

Lundsjö discloses a mobile communications system that balances and “rate matches” different types of services used simultaneously by a mobile terminal. *See*, generally, FIGS. 2 and 3; Col. 1, line 66 to Col. 2, line 8; etc. Lundsjö fails to teach or suggest many features recited by Claims 1 and 10, as admitted by the Examiner.¹

Decker discloses a packet radio transmission system, using hybrid ARQ Type II, in which two puncturing matrices (i.e., Version A and Version B) are used to puncture the data to be transmitted. However, Decker teaches that his puncturing matrices are used in an alternating fashion, defining odd and even periods, and are dependent only upon overall coding rate R and VRRM frame length N. *See*, e.g., FIGS. 2 and 3; Table 1; Abstract; Col. 1 line 45 to Col. 2, line 43; Col. 3, line 22 to Col. 4, line 20; etc. Decker fails to teach or suggest adjusting or determining a puncturing rate based on acknowledged information from the remote counterpart, as recited by Claims 1 and 10. Consequently, Claims 1 and 10 are allowable over the cited references.

¹ *See*, Office Action at Pages 3 and 5, respectively.

Furthermore, Claim 1 is also allowable for the additional – and independently sufficient – reason that both Lundsjö and Decker fail to teach or suggest that the puncturing rate is adjusted and applied for the transmission of the stored TBs. Instead, Decker merely describes that the encoded bits are retransmitted when the NAK signal is received at the transmitter side. Consequently, Claim 1 is allowable over the cited references.

Moreover, Claim 10 is also allowable for the additional – and independently sufficient – reason that both Lundsjö and Decker fail to teach or suggest that a controller controls the retransmission of the TB and determines the puncturing rate based on the acknowledgment information. Rather, Decker teaches that the controlling means predicts the success or failure of the transmission using a log-likelihood value. Consequently, Claim 10 is allowable over the cited references.

Claims 2–9, depending from Claim 1, and Claim 11, depending from Claim 10, are also allowable, at least for the reasons discussed above.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance and should now be passed to issue. A Notice of Allowance is respectfully solicited. If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested. The Commissioner is hereby authorized to charge any fees and to credit any overpayments that may be required by this paper under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 02-2135.

Respectfully submitted,

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